

Applicants: Greg GuangHua Qiao et al

VERSION OF CLAIMS SHOWING MARKED-UP CHANGES

4. (Amended) A composition as claimed in ~~any of claims 1 to 3~~claim 1 wherein the phenolic resin is selected from either resole or novolac and phenolic imide or phenolic polyamide or mixtures thereof.
5. (Amended) A composition as claimed in ~~any one of claims 1 to 4~~claim 1 wherein the phenolic resin is substituted with alkyl or imide.
8. (Amended) A composition as claimed in ~~any one of claims 1 to 7~~claim 1 where the refractory material is one or more of non-oxide refractory materials.
13. (Amended) A composition as claimed in ~~any one of claims 1 to 12~~claim 1 further comprising an additive selected from the group consisting of crosslinkers, polymerization promoters, catalysts, soaps, wetting agents, accelerators, hardeners and/or sources of formaldehyde.
16. (Amended) A composition as defined in ~~any one of claims 1 to 15~~claim 1 wherein the binder phase is selected from the group consisting of novolac-HMTA, novalac-furfuryl alcohol(FA)-HMTA, resole-novolac-HMTA, resole-carbon, resol-carbon-novolac-HMTA-FA, novolac-HMTA-FA carbon, novolac-HMTA-FA-carbon-TiB₂, resole-carbon-alumina-silica, carbon-TiB₂ resole, imidophenol-HMTA, poly(N-(hydroxyphenyl) maleimides)-HMTA or polyimide-novolac.
18. (Amended) A composition as claimed in ~~any one of claims 1 to 17~~claim 1 wherein the mesophase carbon is in the form of fibres, pellets, platelets or powder.
19. (Amended) A composition as claimed in ~~any one of claims 1 to 18~~claim 1 wherein the mesophase carbon is 100% anisotropic mesophase derived from naphthalene.
20. (Amended) A composition as claimed in ~~any one of claims 1 to 18~~claim 1 wherein the mesophase carbon is pre-treated by heating.
21. (Amended) A composition as claimed in ~~any one of claims 1 to 19~~claim 1 wherein the polymer or polymer composite and/or mesophase carbon are presented in the form of a solution.
24. (Amended) A composition as claimed in claim 22 ~~or 23~~ wherein the solvent is water or an organic solvent.

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26. (Amended) A composition as claimed in ~~any one of claims 1 to 25~~claim 1 wherein other additives known in the polymer art are included in the polymer, polymer composite and/or synthetic mesophase carbon mixture.

27. (Amended) A composition as claimed in ~~any one of claims 21 to 26~~claim 21 wherein the mesophase carbon is combined with a solution of novolac/HMTA/FA.

30. (Amended) A method as claimed in claim 28 ~~or 29~~ wherein the cured mixture is heated up to temperatures above about 800°C.

32. (Amended) An article which is wholly or partly manufactured from the carbon-containing material defined in ~~any one of claims 1 to 32~~claim 1.

37. (Amended) An article as claimed in claim 32 ~~or 36~~ which is used as a refractory liner in furnaces used for high temperature processing of materials.